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Improving communication in a transportation company by using a Web page

Cristina Logofatu

IMPROVING COMMUNICATION IN A TRANSPORTATION COMPANY BY USING A WEB PAGE

A Project

Presented to the

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In Partial Fulfillment

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in

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by

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ABSTRACT

The Internet has become a very powerful tool in improving communication, making it easier, more convenient, and faster to access or exchange information. This project takes advantage of the strengths the Internet is giving to improving communication by developing a web site for a transportation company. The problem that both the drivers and the dispatchers were experiencing was represented by the misunderstandings that appeared during a telephone conversation (street names, numbers, and dates were not clearly understood by the drivers). Considering numerous factors, such as the size of the company, the English skills of the communicators, a solution was proposed: the development of a web site that would provide a special page for each driver. Also the company site will give information for the potential drivers who would want to know more about the hiring requirements and process. The project was developed over a period of 3 months. Because of the benefits it could offer for this specific project, the Rapid Prototyping method of design was used. Interviews, observations, and questionnaires were developed for the analysis phase. The design could always be changed according to the needs of the users. A final evaluation was conducted and the results are presented in this paper. The

project needs further development in order to fully respond the requirements of the audience.

ACKNOWLEDGMENTS

I would like to offer my sincere thanks to the people who took part into the whole process of developing the thesis and the project for the fulfillment of the Masters Degree:

- The manager of the company, Adela Bariu, who encouraged me to develop the web site and find the usability for it
- Prof. Brian Newberry, for helping me with information and support along the journey towards completion
- My husband, Florin Ciorna, who has been very understanding and helpful during my long hours of studying
- My first reader, Dr. Eun-Ok Baek, for being always ready to answer my questions and guide me through the whole time I worked on my project
- My second reader, Dr. Richard Ashcroft, who has had a very positive influence on me.

DEDICATION

I would like to dedicate this project to my family in Romania and to my husband who believed in me and who have given me the chance to attend the courses in the Instructional Technology program.

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CHAPTER ONE

BACKGROUND

Introduction

Today's world tends to be dominated by using fast and easy-to-use means of communication. People want to know more quickly the changes that take place in their areas of interest or work. Transportation is one field where technology is being used more and more. Maps on computers, access to the Internet, special programs for gathering information about the loads in the computer, all of these are just a few realities in the transportation business today. Drivers and dispatchers were among the first ones to use mobile phones because they was easy and convenient to communicate with . Effective use of the Internet can save still more time and prevent misunderstandings that can be avoided.

Statement of the Problem

The immigration rate has been raising more and more and the people with poor English language skills are having communication difficulties (http://www.naswpress.org/publications/books/diversity/multicultural_issues_2/3029_fwd.html). Because many of the drivers are not native English speakers, a lot of

communication problems can occur. Misunderstandings about directions, appointments and delivery dates are only a few examples of the problems one needs to face in this kind of business. More specifically, even if the directions in themselves (turn right, make a left or make an U turn) are not difficult, there are problems with understanding numbers and the names of the streets. Another type of problem faced by the manager of a company that employs many English learners is the fact that (s)he lacks time to interview new drivers. For any company (such as the one I am going to discuss about in my project), time is very valuable. There are not a lot of people working in the office and the manager tends to keep an eye on everything (from giving directions, to meeting with customers, to dealing with claims and problems). For a big company, the manager still needs to make time for the new employees and conduct interviews. Therefore, for time and money saving, for improving the driver's performance by reducing accidents and reducing the rate of stress, there needs to be a solution that will improve communication.

Purpose of the Project

This project attempts to offer a good solution for reducing communication problems. A web site for new and old

drivers will be posted. This project will be applied and evaluated in a small transportation company of about 20 drivers. The purpose of this project is to provide a web site for new and old truck drivers in this company so that they will know exactly what is expected from them and when. It is important for a trucking company to have a system on the Internet that will allow drivers to check their own appointments, deliveries and directions. This project will provide a very quick and easy way for Internet users with poor computer skills to get the information they need.

Significance of the Project

The product of this project will be a very easy to use web site. It will help new drivers to fill in an application before they come to the interview. This way both the driver and the interviewer will save time. This web site is also going to be very helpful for over-the-road drivers since it will provide updated information about directions, appointments or dates for pick-ups or deliveries. The site will be updated periodically for new information concerning changes in the transportation area. It will also provide links to useful sites for the drivers. The web site will have a separate page on the staff and the company. It will also include a list of prices for partial

loads and for full loads that will be updated when changes occur.

Limitations

During the development of the project, a number of limitations were noted. These limitations are the following:

1. The unavailability of the users to test the progress of the project in all stages the designer needed
2. The lack of Internet access for all drivers every day in order for them to get the load information in time.

Definition of Terms

The following terms are defined as they apply to the project:

Web site - A collection of related web pages interconnected by hypertext links. (Alexander & Tate, 1999, p.6)

Web page - An HTML file that has a unique address on the World Wide Web (Alexander & Tate, 1999, p.6)

Internet- "An extensive computer network made up of thousands of other, smaller businesses, academic, and governmental networks" (Webster's New World, College Dictionary, 2000, p.746)

Rapid Prototyping -"Rapid prototyping presupposes a design environment which makes it practical to synthesize and modify instructional artifacts quickly. Without such an environment it becomes inefficient and, therefore, loses its attractiveness" (Tripp & Bichelmeyer, 1990, p. 38)

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

We live today in an information society (Synnott, 1987; Resnick & Taylor, 1994; Zuckerman , 2001). How can we keep up with the enormous amount of information we need to know? Is business influenced by the fact that the right information needs to be known at the right moment? How can the Internet help? What are some rapid methods of finding solutions? These are a few questions that this chapter addresses.

Technology and Business

Introduction of Computers, Software and the Internet in Business

A lot of specialists in business seem to agree on the fact that technology has influenced and continues to influence activities and communication (Zuckerman, 2001; Maloff, 1996). Using different technologies, as opposed to the pen and pencil methods of improving customer support, communicating and increasing sales, had sped up the reaction to customers or consumers response (Gates, 1999) and has improved the business' opportunities (Ezor, 2000). It also has offered competitive advantages as compared to

businesses that have not adopted new technologies (Synnott, 1987). Computers, as well as technology in general, are considered now a new method to improve a business in every way. New software is developed for facilitating and assisting people's various needs in a variety of domains. There are many manuals and publications to help a user find what can be best applied to a specific type business such as *The Microcomputer Index* or *Software Digest*. Useful software can offer competitive analysis, marketing support, applications support, and sales tools (Synnott, 1987). Another element to be considered in today's business world is the use of the Internet. The Internet has become a popular means of communication from the early 80's (Cronin, 1996). It offers a faster and more efficient means of accessing and processing information, as well as a better way of communicating internally (within the company or organization) and externally (to customers, partners, consumers, suppliers) (Maloff, 1996).

Web Sites and Business: The Different Purposes of a Web Site

The Internet offers a great deal of commercial potential for companies in different fields (Resnick, Taylor, 1994; Cronin, 1996). The Internet is now the key to rapid communication. In his book *Business at the Speed of*

Technology, Bill Gates (1999) writes about "connectivity." He sustains that "Connectivity takes on a broader meaning than simply putting two or more people in touch" (Gates, 1999, p. xvi). The Internet creates an universal place that includes electronic email, research, tracking of other business' products and marketing, advertising, training (Resnick & Taylor, 1994; Cronin, 1996). Electronic Email is now the means of increasing the communication flow creating a quick, easy and inexpensive means of collaborating with customers, employees, consumers and colleagues (Resnick & Taylor, 1994). A lot of daily information found not only in newspapers or magazines, but also in books and articles or other publications can be researched on the Internet. Training on-line is another advantage the Internet is offering. More and more colleges and universities use virtual classes to meet with the students. Internet training supports a "substantial learning curve" increase (Bremer, 1996, p. 209). More and more, companies are using the Internet for improving the marketing of their business and the sales of their products. Web sites are becoming convenient and easy to use marketplaces (Heinen, 1996).

Disadvantages in Using the Internet

It is generally accepted that using the Internet is very productive. But are there any disadvantages in using the Internet?

The first disadvantage to be considered would be the Internet connection. If the Internet is not fast enough, it can be frustrating and time consuming. In her article *Productivity, Policy, and internet training issues*, Bremer (1996) draws the attention of the reader to one disadvantage that might represent a problem in the Internet future. The issue refers to the employees' training for using the new technology. That involves money, time and interest from the employee's side. Other issues might intervene when using a web site for commercial purposes: authentication, privacy (the transmitted data are protected), integrity (the message received is the message sent), and right delivery (the message sent gets to the right person) (Grant, 1996).

Developing Web Sites for a (Transportation) Company

In order for somebody to develop a web page for a specific company, they need to know and understand the business (Ezor, 2000). You also need to know the employees and the users of the web site (Pearrow, 2000).

To obtain a web site that is going to be useful, the first step a designer should take would be to establish the purpose of the web site. Determining the purpose of the web site has little to do with the text included but with the design and methodology (Pearrow, 2000). For example, for a transportation company, a manager who asks for a web site might consider using it for increasing sales, advertising for new customers or new drivers or simply to provide information for over-the-road drivers for the load they are transporting (directions, pick-up and delivery dates and numbers). The next step in developing a web page is to put together a framework for planning the web site. Adam Blum (1996) suggested such a framework as being comprised of outlining of the content, establishing a page style, choosing the software that is going to be used, and planing the document management strategy. All of these steps will make the web page easy to follow and understand.

Specialists in designing web pages have differing opinions about the content or text of a web site. Some web site creators agree that the content of the web site is one of the most important aspects of company evaluation (Heinen, 1996; Nettleton, 2002). Others emphasize more the design part of the web page (Blum, 1996; Alexander & Tate, 1999). Probably there can be a balance between these

emphases. Certain companies need a lot of advertising to get on the market and this is why the design would be more important for them. Other companies might want to increase the sales for a specific product. In either case, the text goes along with the design. One cannot be complete without the other. Whatever the purpose of the web site is, a good design along with interesting and useful text will make a company more competitive. No matter what the purpose of the web site is, a trucking company should take into account that better information combined with good design means better business. Even if the purpose of a web page is not advertising, but simply providing useful information to the current and future employees, an attractive and simple design can represent a plus for the company.

A web page is made up of four main elements: pictures, layout, links and formatted text. Certain elements should not be forgotten in the design of any company web page: an address should be provided to respond with feedback, there should be icons on each page to lead the user to the home page and to the previous page, there should be titles for each page, and copyright statements must be included (Alexander, Tate, 1999; Blum, 1996).

The ISD Approach: Rapid Prototyping

Instructional System Design: Generalities

Instructional system design approach was defined by Gagne, Briggs and Wager (1992) as " a process of planning and developing instructional materials that makes use of research and learning theory and employs empirical testing as a means for improvement of instruction" (p. 34).

There are several design models that have been proposed by ISD specialists such as Seels and Glasgow(1998), Dick and Carey(1990) or Gagne(1992).

All design models have their bases on four main key elements around which they focus their attention: learners, methods, objectives and evaluation. These components can correlate among them and, together with other elements, they can form a complete instructional design model (Kemp & Morrison, 1998). Probably the most known ISD model is the one that Dick and Carey(1990) developed. Their system approach model points to different stages of application. The authors start by defining instructional goals, conducting instructional analysis and identifying entry behaviors and characteristics. The next step they suggest is writing performance objectives, developing test items and instructional strategy, followed by developing and selecting instruction. The final step refers to formative

evaluation and summative evaluation (Dick & Carey, 1990). This model has been considered as idealistic and very hard to apply to the realities faced in instruction (Shambaugh & Magliaro, 1992). Yet, it has offered a very good start for the development of the ISD models.

Rapid Prototyping

Rapid Prototyping(RP) is a more recent model and it refers to the development of an instructional product in a working format that is used for the analysis, design, development, and evaluation of an instructional project (Stokes, Jones, & Richey, 2000). First used in software development (in which the testing and the testing were performed in parallel), it has later become a popular instructional model as developed by Tripp and Bichelmeyer (1990). One of the strengths of this particular model is that the learner's needs and the context are being considered and analyzed throughout the designing process. They are no longer considered as inputs in the design. (Shambaugh, Magliaro, 1992). Another important aspect when considering applying this model in a problem-situation is that it gives the designer a panoramic view over the whole design process. The phases of the RP model include:

1. assess needs and analyze content; set objectives
2. construct prototype (design)

3. utilize prototype (research)

4. install and maintain system

The first phase of the model includes, like most of the traditional models, the assessment of needs and the statement of the objectives. They establish a sketch or a plan for instructional design that states the purpose of the project and explains the tasks the learners need to perform.

The next phase of the model includes the parallel development of design and research, or construction and utilization (Tripp & Bichelmeyer, 1990).

Probably the most interesting main new feature that RP brings into Instructional Design is the utilization phase. That gives the user the chance to test the prototypes from the early stages of development. In this phase, both the user and the designer learn from each other and with each other. They discover together the parts where the prototype is either weak or strong. Tripp and Bichelmeyer (1990) underline the fact that for the designer gathers the new information and changes or makes up new objectives according to the new needs. In their opinion the output of a project will not be a generalization, but an artifact.

One of the inconveniences in using such a model is the necessity of tools which are mostly software and that

permit flexibility. The software needs to permit changes for certain units without the requirement of the whole project to change and they need to be performing the changes fast. That gives time and cost effectiveness. Thus, without adequate development tools, the RP would not be very successful.

As opposed to the traditional ISD models, Tripp and Bichelmeyer (1990) offer a model with a different view for tackling the problem: they do not try to minimize the problem, but rather admit and cope with its complexity in the design procedure.

CHAPTER THREE

PROJECT DESIGN PROCESS

Introduction

The main questions to be answered in this chapter are "What would make a good web site for a trucking company?" and "How can it be designed, developed, implemented and evaluated?" If the Internet is a very powerful tool that improves communication and gives quick access to information, how can we make it valuable for this trucking company? To answer these questions the Instructional Design Model chosen to help develop the project was the RP method, which offered cost and time reduction. As applied to Instructional Design, the RP model allows great flexibility since the key concepts can be changed at an early stage with little effort. Flexibility is very important in defining the goals and forms of instruction at the early stages of development (Wilson, Janassen, & Cole, 1993). The clear difference in RP model as compared to other ISD models that were discussed briefly in the second chapter is the break of the linear approach when developing a prototype or product, in this case a web page.

The steps that will be followed in the developing of the web site are the ones described in the RP model. The

whole design process starts with the assessing of users' needs, conducting the data analysis, and setting the instructional objectives. It continues with the design and development of the web site and it finishes with the implementation, and evaluation. The designer will always be in contact with the users so all the phases are very closely interrelated.

Analysis

In order to create a good product the designer needs to know the users and their abilities and environment. The users of the final product for this project will be truck drivers in a small trucking company of about 20 employees. The problem that was driving the designer to create a web site was the frequent misunderstanding of directions and frustration on both the drivers' and the dispatchers' sides when facing communication difficulties. Qualitative research methods were used to gather general information about drivers and their technology skills. Three methods of data collection were used: observations, survey, and interviews. A survey of all the drivers was taken (see Appendix B). The survey sought answers to their computer access, level of Internet knowledge, and problems they are facing in communication. The age range of the people

questioned was pretty vast, starting at 22 years old and ending at 67 years old. About 80% of the drivers had more than 3 years driving experience. It was important to specify the driving experience because the longer a driver has been in the business, the greater her or his knowledge might be of the issues that lead to problems in communication. Their opinions would help establish whether or not there is a real problem in communication. One identified source of misunderstandings is represented by the different nationalities, and therefore languages, of the drivers. The results showed that only one out of 15 drivers was a notive English speaker. The others spoke Romanian (7), Russian (2), Iranian (2) and Moldovian (1). From the observations, the designer knew that the main dispatchers were English speakers but coming from different countries, therefore with different accents. Both dispatchers and drivers had problems understanding each others' pronunciation especially when there were names of streets to spell out. The language barrier is definitely one issue that needed to be solved. About 90% of the drivers had access to the computer every day either at truck stops (20%) or by using their personal laptops(63%). The results, together with the observations, showed that all drivers had minimal knowledge of how to use the

Internet. Also, about 90% reported that they would find a web site useful if it improved communication by giving directions and information about the load they were transporting. The survey also gave the designer an idea of what information would be useful to include on the web site. All data collection for this study was done under conditions reviewed and approved by the Institutional Review Board of CSUSB.

During the interview, the manager of the company identified the same problems that the drivers had with communication and agreed that a web site that displayed load information for each driver would be very helpful and useful. Also she insured the designer of her full support in the design and development of such a web site. Another suggestion was made in regards to the new drivers. The manager explained that it is very time-consuming to take interviews and explain all policies and benefits to the potential drivers. Instead, she expressed a desire for an on-line application along with useful information for the new drivers.

The observations the designer and manager made in reference to the current drivers in the analysis phase reflected the need for communication improvement. They had problems understanding the dispatchers' pronunciation of

street names or numbers, but also had some writing knowledge. Also, the new drivers who were interviewed for a job had problems commuting to the main office and they were really disappointed to find out the requirements they needed to meet and the commitments they needed to make in order to be hired.

The survey results, combined with the observations, and, finally, the manager interview, identified that there was real problem and that the solution to be attempted would be an easy-to-use web site for both current drivers (for directions and load information) and potential drivers (for information about the company, benefits and application).

The constraints would be that not all the interviewed drivers had Internet access every day and not all of them expressed interest in using such a web site. Also, using the Internet can sometimes be frustrating due to the low transfer rate that might be experienced by drivers on the road.

To determine user competency, the web site will be tested at different stages of development for feedback. Moreover, the designer will continue to collaborate with the manager and the drivers to find the best model and structure. We are going to use prototypes of the final

version of the web site as a "semifunctional mock-up"(Pearrow, 2000). One of the advantages about using the RP design is that preliminary tests are run even before the actual implementation of the design, at the early stages of the design phase.

The project was designed, developed and tested over a period of 8 weeks.

Design

According to the Idaho State University College of Education web site http://ed.isu.edu/addie/Research/Research.html, the design should be both systematic (developing a plan that includes the right instructional strategies) and specific (apply the selected procedures in a very careful and detailed manner). Pearrow (2000) asserted that a successful web site is the result of a group of people who use their group experience for making decisions.

The designer and the manager have already come to the conclusion that building a web site was a very good idea. Together with the manager, the designer worked on the most important elements to be included in the web site. The conclusions were based partly on the needs already found out in the survey, and partly included due to communication

needs determined in the observations. The main page of the web site should include links to useful web sites, links to the other pages in the web site and should give a brief description of the company. Also, some graphics should be included, such as a sketch or a picture. To make the design more appealing, the colors should be soft and the fonts easy to read recognizable by the Internet browser. The page does not have to look commercial, but rather clear and easy to use. The pages of the site would have the same design though with different text and links, according to the specifics of each page. Consistent navigation styles are considered a plus when designing a web site.

When a web page is being designed, there are few principles that need to be taken into consideration. The page that we want to design for this transportation company needs to create a good first impression that is it needs to be easy to use. The better organized and structured it is, the more confidence will the drivers have in using it. McCraken and Wolfe (2004) also emphasized the fact that content organization and visual organization are very closely related. A good visual organization can make it easier for the user to locate the content they are interested in.

There are four principles the designer had in mind when starting the visual organization of the web site: proximity, alignment, consistency, and contrast. The proximity principle states that information of the same kind is gathered together in smaller groups. It is the normal tendency to believe that what is grouped together is somehow related. That is what the designer tried to do for the transportation company: follow the proximity principle and group the information. For example, on the right hand side, there are a few useful links for truck drivers, such as maps, weather, and truck stops. Also, this menu appears on each of the most visited pages and that gives consistency. Consistency is another principle that was followed in the design of this web site. The pages are consistent in font sizes, colors, layout and navigation bars. Consistency can make the web site easy to understand and navigate (McCraken & Wolfe, 2004). Another feature that may make a web site consistent is the use of the same type of alignment throughout the page and even the whole web site. Alignment offers probably the best way to make web page clear, delimited and easy to follow and understand. For this specific web site, a left alignment was used. The last principle, contrast, was also used. The designer chose the color contrast for delimiting the top navigation bar

from the logo and the rest of the company information and other links.

The visual element is very important for a web site since it can give the site a professional look and can make it easier for the user to navigate and find the information they are looking for.

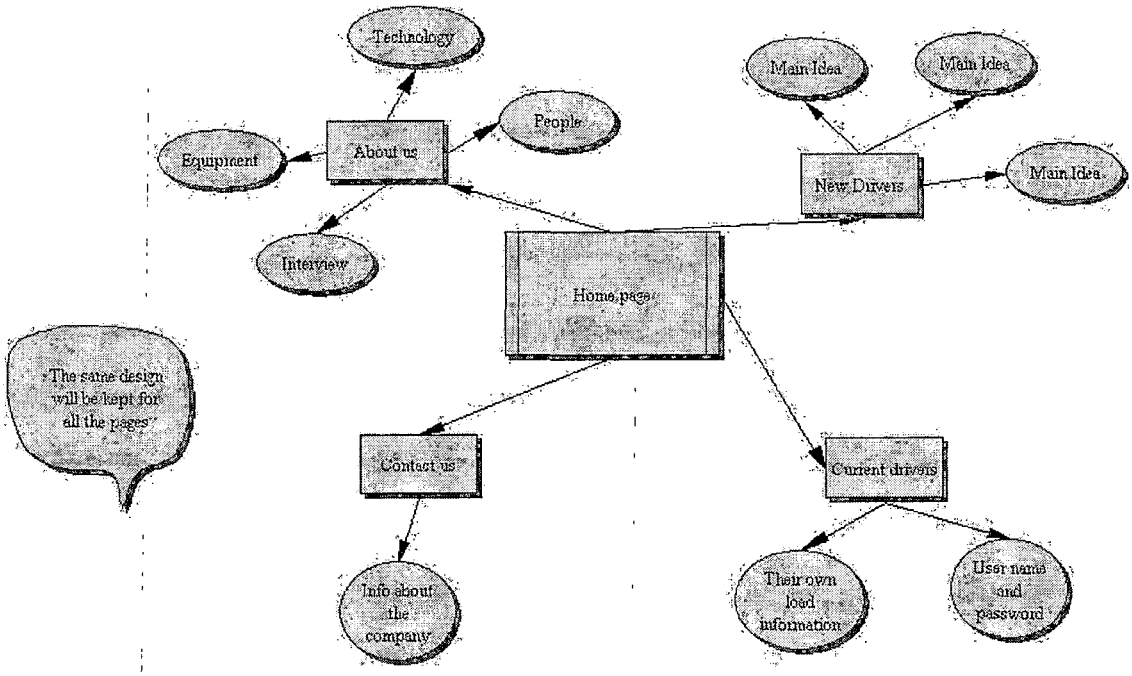
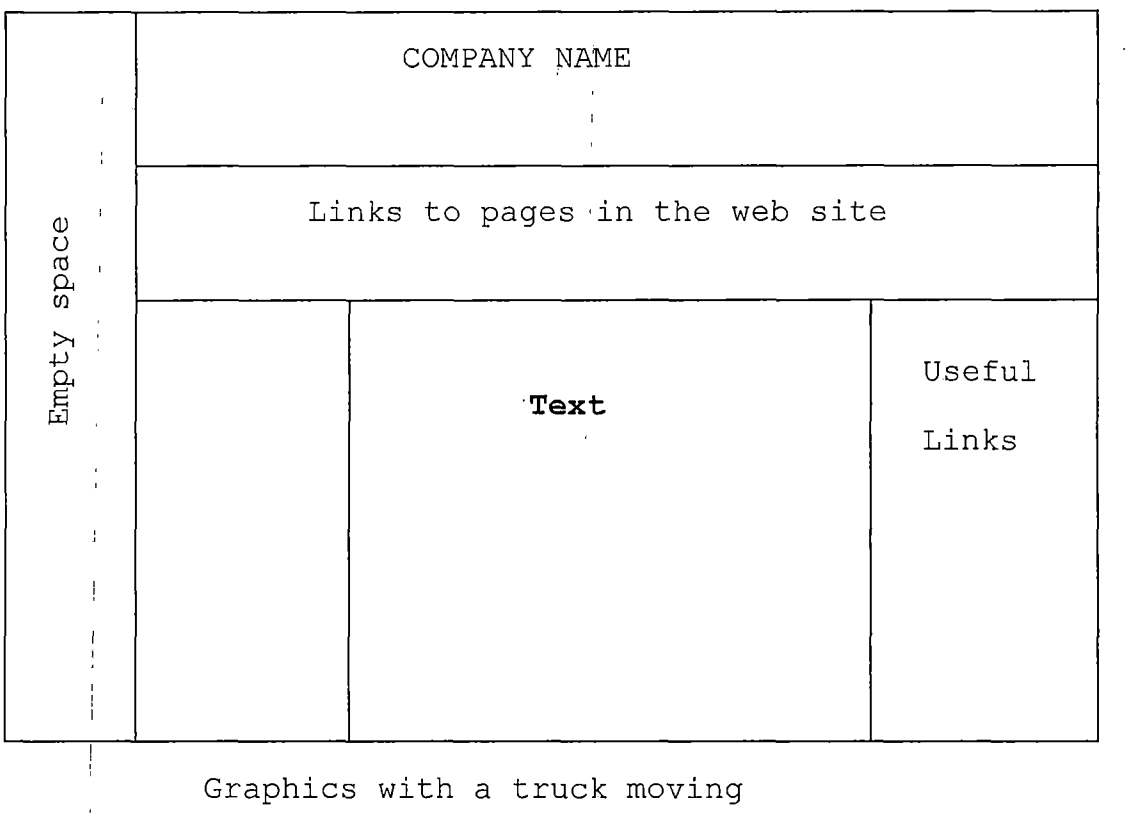


Figure 1. The Main Structure of the Web Site

After doing research on the Internet on how other transportation companies organize their web page, three models built in Microsoft Word were proposed to be used (see Appendix C, D). Each of them had almost the main

features such as the links, the graphics and the text. The third proposal was chosen after consulting with the manager of the company and a few drivers for several reasons: the layout was very simple, the page was very easy to use, the colors were chosen very carefully according to the suggestions given out by the manager, and the fonts were easy to read.

Table 1. Third Design Proposal



This web page would contain 5 main pages: Home, About Us, New Drivers, Current Drivers, Contact Us. The page about the company would give out details about the company and a link to an interview with the manager of the company. The interview was included because it provided valuable information about the company and its expectations for drivers. The page for the new drivers will contain useful information such as benefits, compensations, and a link to an application. The current drivers' page provides access to an access controlled page for each driver through and interface requesting user name and password. The drivers will have access to their own information about the load updated every day by the dispatcher. The "contact us" page will include the mailing address and the telephone numbers, fax number and email addresses where the dispatchers and the office personnel can be contacted.

The materials for building the web site were either conceived together with the manager of the company (interview, text data) or from the collaboration with the office manager (text data, application for new drivers). The content of the web site was to be easy to read to make it more accessible to users with limited English skills.

For specific learning objectives, specific learning strategies need to be taken into consideration according to

the characteristics of the trainees, the environment for training, and the nature of the task (Spector, Polson, & Muraida, 1993).

Since the web site was going to be very easy to access, users did not need special training. The instructional strategy adopted refers to an easy to follow handout (see Appendix E) with instructional steps and pictures for the current drivers. In order for drivers to get acquainted with the usability of the web site they would be given written instructions on how to get to the page they needed. Also, they would be asked to try to access their information at least two times in front of the trainer so that they get the right information.

Development

With the web site requirements and capabilities determined, the next issue was how to produce the web site. There are a lot of convenient and easy to use web design software packages, but the one that met the needs of this project was Macromedia Dreamweaver. Compared with other web site development products such as Front Page and Netscape Composer, Dreamweaver has several features that are handy and easy to use. The page layout was created by using tables and frames. The links to the useful sites in the

right hand site of the corner were created by using Adobe Photoshop. Adobe Photoshop uses effects and fonts that make the graphics more attractive. The font that was used was Times New Roman. Several styles for the links and the text were added. The background of the web page was a tone of blue and the colors of the letters were chosen to be a stronger shade of blue or gray according to the text. We chose pale blue based on the significance this color had for the manager of the company: the first truck she owned and operated was a pale blue one. In her mind, that color brought her the success she has today.

The on-line application was developed by using a script that made it easy for the designer to put together in a table the input from the applicants.

To ensure access control to each driver's page containing load data, a username and password script was developed. The script developed to provide this functionality is not extremely secure, but for the purpose of this project (to test its functionality and usability), the script met the requirements of the development (easy and fast).

Implementation

The only people who needed some training on how to access their load information from the web site were the current truck drivers. The trainer would have to guide the drivers through the web site so at the end they would be able to access the web site on their own without any difficulties. A handout will definitely help the drivers on their way, but a brief discussion with the drivers will also be helpful. The discussions for giving explanations and answer design and usability questions are going to be scheduled according to the drivers' availability for a month period of time. The drivers are going to be given a demonstration and then asked to practice the following basic steps: access the main page of the company web site, navigate through the web site and reach the current drivers page, and login to their information. Feedback is going to be provided for the drivers at each step they are taking.

Evaluation

This project was developed over a period of two months (February to March 2004). Although during the whole process, formative evaluations were conducted, a final, summative evaluation after one month of use was planned in order to find out if the project met the objectives and the

needs of the users. All drivers given the evaluation survey (see Appendix E) found the web site very useful and easy to use. Also they thought the information was accurate. Ninety percent of the drivers believed that the web site functions better than the other methods of communication. Among other links they wanted to see included in the company web page were links to a trip organizer, repair shops in US, road side assistance services, weigh station locations, and speed limits in certain US states. There were no changes proposed by the drivers and 80% liked the design. The most frequent problem that the drivers encountered was the poor Internet transfer rate from their trucks. An answer to this problem was to use Internet cards that provide pre-paid minutes for Internet access in certain truck stops. Moreover most truck stops now have access to the Internet. Further investigation is needed on this matter to ensure access to the site as it becomes more central to the operations of this transportation company.

Summary

This chapter presented in detail the steps followed in order to complete the project. The complete version of this project is expected at the end of July 2004.

The next chapter will present the conclusions of this paper together with some suggestions for projects similar to this.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

Introduction

Creating a web site combined with implementing a certain instructional design has proven to be very challenging. The instructional design chosen for this project was RP. Numerous reasons for choosing the RP approach were considered, such as the time restrictions this project faced, the ease of implementation together with the ease of modification as such became apparent. Rapid Prototyping definitely is more realistic and more applicable to real situations than, for example, the Dick and Carey model that is based on an ideal problem-situation. There are a few areas where the use of this model is more advisable to be used than others; and creating a web site was one of them. To implement such a model, the designer needs flexible tools that apply to the specific project. For this reason, for this project, Dreamweaver and Photoshop were chosen because they provided a level of functionality that was required to implement the design that emerged through use of the RP design model.

Conclusions and Recommendations

There are several issues to be taken into consideration when developing a web site. The analysis part of the project has been given a lot of attention. Why is it important to have a good analysis? Analysis gives answers to what you are trying to achieve, who your audience is, what their needs are, when the project should best be put into practice, why the project is necessary. These are fundamental issues the designer needs to deal with when starting a project. The data collecting method depends on the availability of the audience and the purpose of the project. Numerous methods are available such as observations, interviews, surveys, or focus groups. Selecting the best questions and conducting good focus groups are important to give a better understanding of the problem.

Future web site development for a certain company would have an advantage if one factor was kept in mind. A good rapid prototyping design is one that conducts evaluations or prototypes at each stage. That will give feedback immediately and changes can be made in a very short time.

The development stage of this kind of a project can be very challenging due to an important factor: the way the

current drivers' web page is developed depends on the number of the people who are going to have username and a password. That can change the development steps. Since there was a necessity for each drivers to have access only to their page and not others information, a secure web page needed to be created.

There are some problems that will come up and those will have to do with the Internet access. Causing a change in a company is disturbing and can result in the employees being dissatisfied. That is why it is so important to get employees involved in the project and pay attention to their needs. The Internet is available and accessible almost everywhere. The problem is to make the employees understand how necessary and benefic the project is so they can get started with implementing it.

The company that participated in this project really needed an improvement in communication. A very thorough analysis was made beginning with the manger's perspective experience and observations. This provided information that helped ensure that full analysis provided a more complete understanding of the situation and helped point to logical decisions.

An improvement in communication was definitely necessary in the company. In the analysis phase, the needs were

thoroughly determined. The whole design process depended on both the needs and the commentaries and suggestions made by the manager and the drivers during the design process. The drivers found it very easy to read the names of the streets and the numbers off the Internet page. Also, they appreciated the fact that they did not use a lot of time on the phone when getting directions. Waiting time and misunderstandings are only two of the main reasons the drivers did not like to use the phone.

This project needs improvement in protecting the personal pages of the drivers and in the aesthetics of the web page itself. Also, more information needs to be added for the customers such as rate sheets for both full loads and partials. There are a few inconveniences for the drivers that were noticeable when using the web page: the fact that not all drivers had Internet access, not all of them checked the pages on time. These inconveniences can be avoided in the future, but further discussions are necessary to establish definite solutions for the problems.

APPENDIX A

CD OF PROJECT

APPENDIX B

SURVEY

1. Age

20-35 36-50 51-65

2. Nationality

3. Please choose the level at your English language Understanding skills:

a) poor b) good c) very good

4. Please choose the level at your English language Speaking skills:

a) poor b) good c) very good

5. Please choose the level at your English language reading skills

a) poor b) good c) very good

6. Years of driving experience

a) 1 or less b) 1-3 years c) over 3 years

7. What means of communication do you use for getting in touch with the dispatchers?

a) Telephone b) Text messages

c) Internet d) Others (please list)

8. Do you have phone coverage all over the United States?

a) yes b) no

9. Do you know how to use the Internet?

a) yes b) no

10. Do you have Internet access every day?

a) yes b) no

11. Please name at least 3 difficulties when communicating to the dispatchers

12. Do you always understand the directions, appointments and contact people you are given from the main office?

a) yes b) no

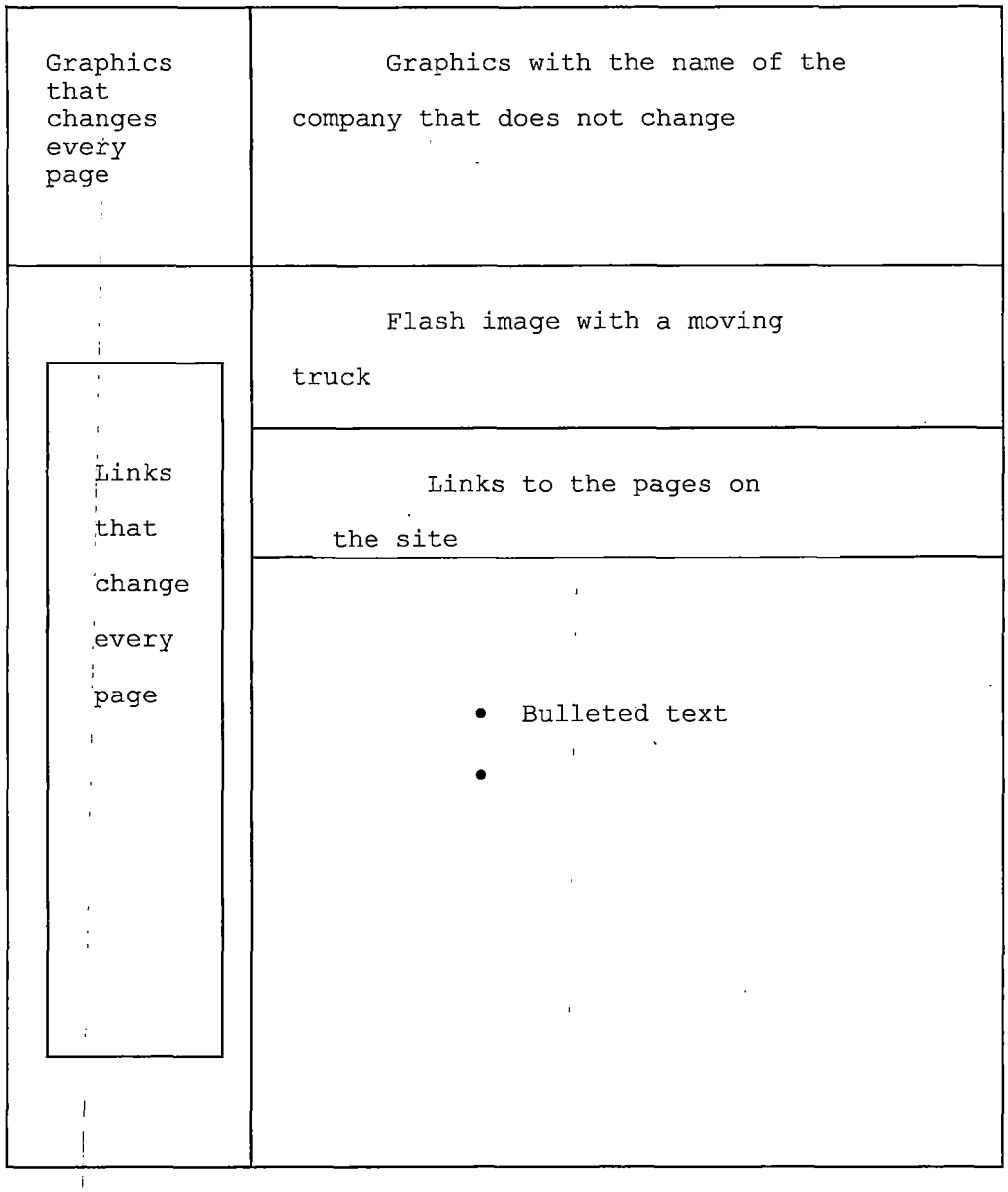
13. Do you think a web site that would give you information about your load (including appointments, directions, delivery numbers etc.) would be helpful?

a) yes b) no

14. If yes, what else would you like to see on the web site?

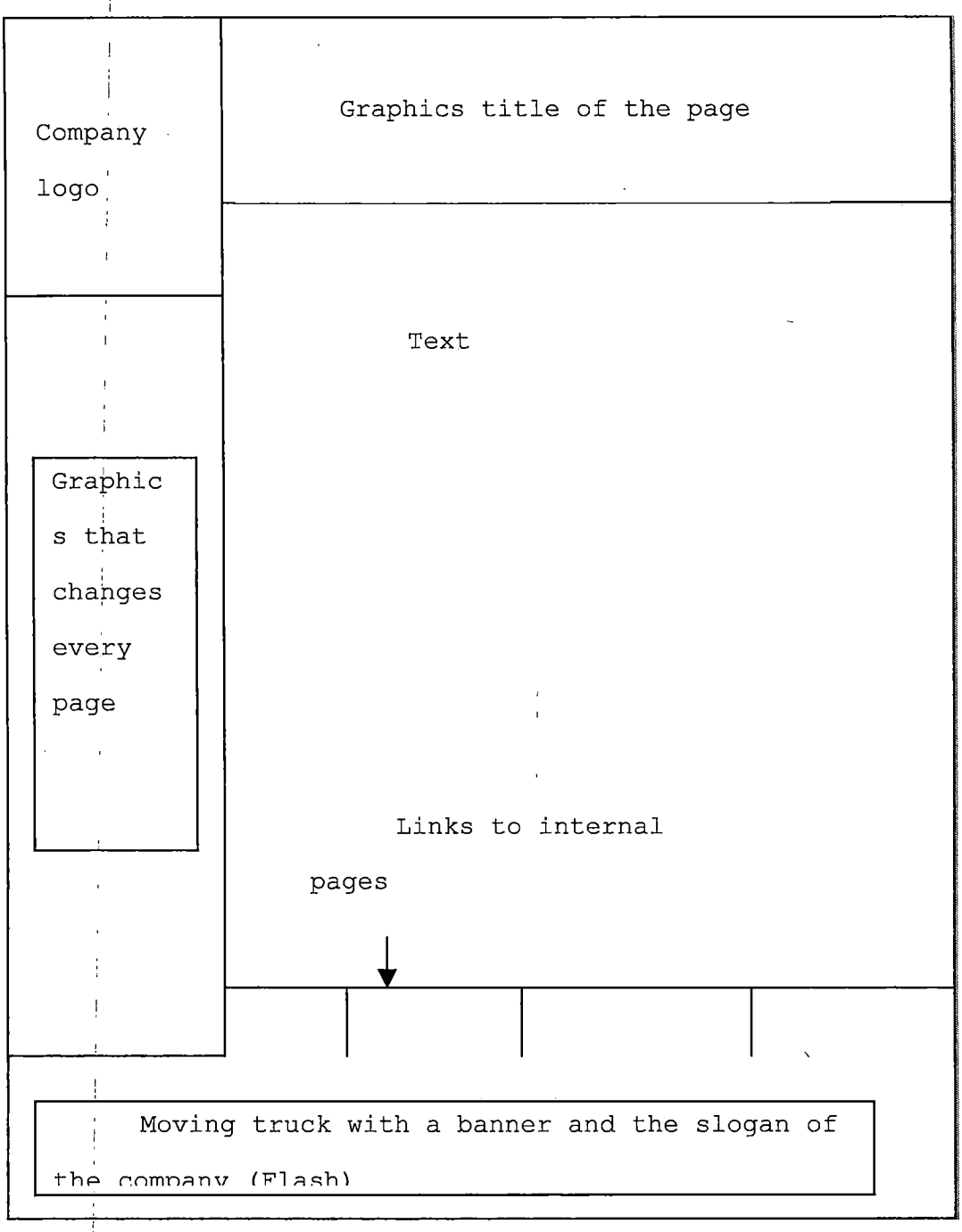
APPENDIX C

FIRST DESIGN PROPOSAL


Graphics that changes every page
Graphics with the name of the company that does not change
Flash image with a moving truck
Links that change every page
Links to the pages on the site
Bulleted text

APPENDIX D

SECOND DESIGN PROPOSAL


Company logo
Graphics title of the page
Text
Graphics that changes every page
Links to internal pages
Moving truck with a banner and the slogan of the company (Flash)

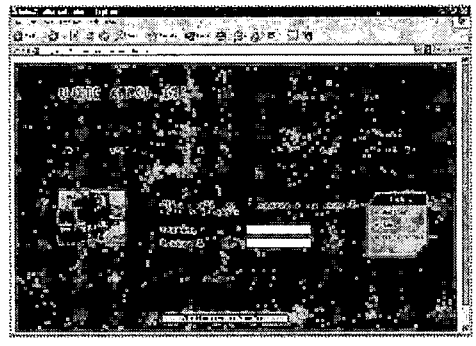
APPENDIX E

HANDOUT

User Guide

This handout will provide you the steps you need in order to access your own information.

1. Step one: access White Arrow web-site:
2. Step two: input your user name(last name and first letter of your first name) and password(the password you chose in the main office)
3. Step three: copy the information you need for your load



Should you have any problems, please email us at

APPENDIX F

EVALUATION QUESTIONS

1. Did you find the web site useful?

a) yes b) no

2. Are the pages clear and easy to use?

a) yes b) no

3. Is the information accurate?

a) yes b) no

4. Did you like the design?

a) yes b) no

5. What would you change about it?

6. What other links would you like to have posted on the web site?

7. Do you think it functions better than using other methods of communication?

a) yes b) no

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